REMARKS

After entry of this amendment, claims 1-23 remain pending. In the present Office Action, claims 1-20 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tikalsky, U.S. Patent No. 5,875,179 ("Tikalsky"). Applicants respectfully traverse these rejections and request reconsideration.

Section 103(a) Rejection

Applicants respectfully submit that each of claims 1-23 recites a combination of features not taught or suggested in the cited art. For example, claim 1 recites: "a plurality of nodes, wherein each node of the plurality of nodes comprises a simulator and is configured to simulate a different component of a system under test using the simulator, and wherein each node is configured to perform a simulation as a series of timesteps, wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component ... wherein a transition between timesteps in the plurality of nodes is synchronized".

The Office Action alleges that Tikalsky teaches a plurality of nodes as the nodes 10 in Fig. 1. However, the nodes 10 are described as communication stations or terminals (Tikalsky, col. 3, lines 55-57). The nodes 10 communicate with the repeaters by radio terminal links (Tikalsky, col. 3, lines 55-57). Additionally, the Office Action refers to Tikalsky's teachings at col. 11, lines 33-50. However, this section describes frames of data that can be transmitted within the communication system. Nothing in this section teaches or suggests "a plurality of nodes, wherein each node of the plurality of nodes <u>comprises a simulator and is configured to simulate a different component</u> of a system under test using the simulator" as recited in claim 1. In fact, Tikalsky appears to have nothing to do with simulation of a system under test. Rather, Tikalsky is concerned with synchronized communication over a wireless backbone architecture (see title).

The Office Action also alleges that the hop period taught in Tikalsky is a timestep. However, Tikalsky's hop period is described with respect to his frequency

hopping scheme, in which a communication channel is switched over some set of frequencies over time (Tikalsky, col. 2, lines 29-38). The amount of time that one frequency is used before hopping to the next frequency is the hop period (Tikalsky, col. 5, lines 42-48). Applicants respectfully submit that Tikalsky's hop period has nothing to do with a timestep, "wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component" as recited in claim 1.

Furthermore, Tikalsky's general discussion of synchronization in wireless LAN communication (col. 2, lines 39-52) and his discussion of a backbone of repeaters that use frequency hopping to automatically establish synchronization in the wireless communication system (col. 3, lines 1-3) do not teach or suggest "wherein a transition between timesteps in the plurality of nodes is synchronized" as recited in claim 1.

For at least all of the above stated reasons, Applicants respectfully submit that claim 1 is patentable over the cited art. Claims 2-10, being dependent from claim 1, are similarly patentable over the cited art for at least the above stated reasons. Each of claims 2-10 recite additional combinations of features not taught or suggested in the cited art.

Claim 11 recites a combination of features including: "each of the plurality of nodes simulating a different component of a system under test and configured to perform a simulation as a series of timesteps in a simulator, wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component, and ... synchronizing a transition in the plurality of nodes from the first timestep to a second timestep". The same teachings of Tikalsky highlighted above with respect to claim 1 are alleged to teach the features of claim 11. However, these teachings also do not teach or suggest the above highlighted features of claim 11. For at least these reasons, Applicants submit that claim 11 is patentable over the cited art. Claims 12-17, being dependent from claim 11, are similarly patentable over the cited art for at least the above stated reasons. Each of claims 12-17 recite additional combinations of features not taught or suggested in the cited art.

Claim 18 recites a combination of features including: "each of the plurality of nodes comprising a simulator and simulating a different component of a system under test using the simulator, wherein each of the plurality of nodes is configured to perform a simulation as a series of timesteps, wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component, and ... synchronize a transition in the plurality of nodes from a first timestep to a second timestep in response to receiving the first command from each of the plurality of nodes". The same teachings of Tikalsky highlighted above with respect to claim 1 are alleged to teach the features of claim 18. However, these teachings also do not teach or suggest the above highlighted features of claim 18. For at least these reasons, Applicants submit that claim 18 is patentable over the cited art. Claims 19-20, being dependent from claim 18, are similarly patentable over the cited art for at least the above stated reasons. Each of claims 19-20 recite additional combinations of features not taught or suggested in the cited art.

Claim 21 recites a combination of features including: "transmit a first command to a hub if a node that is simulating a component of a system under test is ready to transition from a first timestep to a second timestep in a simulator, wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component, and ... transition to the second timestep in response to receiving a second command from the hub". The same teachings of Tikalsky highlighted above with respect to claim 1 are alleged to teach the features of claim 21. However, these teachings also do not teach or suggest the above highlighted features of claim 21. For at least these reasons, Applicants submit that claim 21 is patentable over the cited art. Claims 22-23, being dependent from claim 21, are similarly patentable over the cited art for at least the above stated reasons. Each of claims 22-23 recite additional combinations of features not taught or suggested in the cited art.

Section 112 Rejection

The Office Action alleges that claims 1-20 are indefinite, specifically stating that it is not understood how each of the nodes is configured to simulate a different portion of

a system under test, how each node is configured to perform a simulation as a series of timesteps, and what is meant by timesteps. Applicants respectfully disagree, and respectfully assert that the claims, as filed, meet the requirements of the 35 U.S.C. § 112. Furthermore, Applicants note that the Office Action contradicts itself by later asserting that the meaning of timesteps is obviously some kind of hop period (see Office Action, page 3, item 6). Applicants disagree with this assertion of the meaning of timestep as well. Applicants respectfully submit that the meaning of the term timestep, with respect to simulation, is well known to those of skill in the art.

Nevertheless, to expedite prosecution, Applicants have amended claim 1 to recite "each node of the plurality of nodes comprises a simulator and is configured to simulate a different component of a system under test using the simulator". Applicants respectfully submit that the above phrase further clarifies how a node is configured to simulate a component of the system under test. Furthermore, Applicants have amended claim 1 to recite "each node is configured to perform a simulation as a series of timesteps, wherein a timestep is a granule of simulation time by which the simulator advances the simulation of the component, and wherein the plurality of nodes simulating the components collectively form a simulation of the system under test". Applicants respectfully submit that these amendments, and the context of claim 1 as a whole, further clarify how each node is configured to perform a simulation as a series of timesteps, and what is meant by timesteps.

Similar amendments have been made to the other independent claims. Accordingly, Applicants respectfully submit that the section 112 rejection is overcome.

CONCLUSION

Applicants submit that the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-98000/LJM.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☐ Petition for Extension of Time

☐ Request for Approval of Drawing Changes

☐ Notice of Change of Address

☒ Please debit the above deposit account in the amount of $180 for fees ($180 IDS fee).

☒ Other: IDS and cited references

Respectfully submitted,

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AGENT FOR APPLICANT(S)

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